



Minutes

WATER RESOURCES ADVISORY COMMISSION Monthly Meeting

October 02, 2014, 9:00 AM
 District Headquarters - B-1 Auditorium
 3301 Gun Club Road
 West Palm Beach, FL 33406

Attendee Name	Title	Status
Douglas Yoder	Alternate for Bill Johnson	Present
Samantha Whitcraft	Alternate for John Lamkin	Absent
D. Albrey Arrington	Utility	Present
Shelley Vana	Local Government	Present
Douglas Bournique	Agriculture	Present
Bob Ulevich	Alternate for Doug Bournique	Absent
Chuck Collins	FWC / Statewide	Absent
Harry Cronin	Alternate for Jim Reynolds	Absent
Vincent Encomio	Alternate for Mark Perry	Absent
Jim Reynolds	Utility	Present
Kurt Harclerode	Alternate for Pam Keyes	Present
Michael Harford	Local Government	Absent
Mark Perry	Environmental	Absent
James Humble	Agriculture	Present
Kristin Jacobs	Local Government	Absent
William "Chad" Kennedy	FDEP	Present
John T. Lamkin	NOAA / Federal	Absent
Joan Lawrence	US DOI / Federal	Present
Barbara Miedema	Agriculture	Present
Linda McCarthy	Alternate for Bubba Wade	Present
Kimberly Lawrence	Alternate for Michael Harford	Present
Newton Cook	Public Interest	Present
Don Fox	Alternate for Chuck Collins	Absent
Mary Ann Martin	Public Interest	Absent
Brian L. Wheeler	Utility	Present
James J. Moran	Chairman	Present

Joe Capra	Business	Present
Bud Howard	Alternate for Albrey Arrington	Absent
Michael Collins	Public Interest	Present
Mark Dombroski	Alternate for Newton Cook	Absent
Medora Krome	Alternate for James Humble	Absent
James Erskine	Miccosukee Tribe	Absent
John Lesman	Business	Present
Ashley Tripp	Alternate for Mary Ann Martin	Present
Maelo Reyes	Alternate for Jeff Schmidt	Absent
Rich Budell	Alternate for W. Ray Scott	Present
Wovoka Tommie	Seminole Tribe	Absent
Malcolm "Bubba" Wade	Agriculture	Present
Jacqui Thurlow-Lippisch	Alternate for Joe Capra	Absent
Thomas Greco	USACE	Present
Neale Montgomery	Business	Present
Harry Raucher	Utility	Present
Pat Martin	Alternate for Harry Raucher	Present
Joshua Kellam	Business	Present
Stacy Myers	Alternate for Wovoka Tommie	Present
Lance R. Bennett	Business	Absent
Erin Deady	Environmental	Absent
Adam Gelber	Public Interest	Absent
Jane Graham	Environmental	Present
Jason Liechty	Alternate for Kristin Jacobs	Absent
Tom Jones	Agriculture	Absent
Mike Sweeney	Alternate for Brian Wheeler	Present
Pam Keyes	Utility	Absent
Jenny Conner Nelms	Environmental	Absent
Nancy Payton	Environmental	Present
W. Scott Ray	FDACS / Statewide	Present
Karson Turner	Local Government	Present
Jamie Poulos	Alternate for Lance Bennett	Absent
Caroline McLaughlin	Alternate for Jane Graham	Present
Bill Johnson	Utility	Absent
Kevin Powers	Vice-Chairman	Present
Kristina Serbesoff-King	Alternate for Jenny Connor Nelms	Present
Jeff Schmidt	NRCS	Present

1. Call to Order - James J. Moran, WRAC Chairman

Mr. Moran called the meeting to order at 9:01 am. Mr. Moran welcomed Representative Katie Edwards and announced that a WRAC meeting would be held on December 4, 2014.

2. WRAC Member Issues

Newton Cook, United Waterfowlers, provided an update on the September 15th WRAC Recreational Issues meeting and announced the next meeting is December 15, 2014 at District headquarters.

Jim Reynolds, Reynolds Engineering & Consulting, asked for a District prospective and update on the upgrading, expansion, cooling canal and monitoring of the Turkey Point project and its effect on ground water.

Kimberly Lawrence, Osceola County – Alternate for Michael Harford, thanked the operators of the system who have done a fabulous job adjusting water levels when needed as it has been very wet in the northern region over the past few weeks.

Commissioner Shelley Vana, Palm Beach County Board of County Commissioners, said she attended the last Florida Association of Counties meeting and there was a lot of concern expressed related to Waters of the US (WOTUS) and the county's agricultural community is working through the National Association of Counties to communicate to federal authorities and the White House that this measure will cost Florida a lot of money and Palm Beach County will weigh in on the matter by submitting a letter. The Commissioner continued that Palm Beach County flood map hearings have been completed and everyone seems to agree on the maps presented. Commissioner Vana reported that she sat on a panel on October 1st regarding climate change and was told that the Obama administration is reaching out to the insurance community to try and get them to embrace the climate change philosophy and possibly base insurance rates on the issue which would increase insurance rates and make it difficult for homeowners to sell their houses. Commissioner Vana said that even though climate change and insurance changes are projected to become an issue in the future, the Four-County Compact will serve as a model so these issues need to be well-thought out and discussed. The Commissioner said that she would like the District and the WRAC to lend their expertise to the subject so that logical recommendations can be discussed in preparation for the future.

Jane Graham, Audubon Florida, complimented the United States Army Corps of Engineers (USACE) and the District for on their operation of the Lake over the last month. Ms. Graham noted that the Lake is currently at a level around 15.5 ft and stated that Audubon believes it can be held safely around 16 ft being that it is the end of the wet season. Ms. Graham said that there is flexibility to hold it a little higher because it is good for both the Lake and the estuaries and is in good shape headed into the dry season.

Joe Capra, CAPTEC Engineering, made several remarks regarding continuing to move forward with projects especially the Central Everglades Planning Project and continuing to support fewer discharges to the St. Lucie estuary for the health and protection of people, dolphin, and fish.

Nancy Payton, Florida Wildlife Federation (FWF), announced a ribbon cutting for the completion of the Merritt Pumpstation on October 24th related to the Picayune Strand project. Ms. Payton stated that the Collier County BOCC is undertaking the next steps in developing a Watershed Management Plan that will include two watersheds; one north and the other immediately west of the Picayune Strand Restoration project. Ms. Payton

continued that there is a growing concern/resentment being expressed at the Commission meetings that Collier County through the Big Cypress Basin (BCB) is responsible for the ongoing operations and maintenance of the Picayune Strand pumpstations and related support system and funds will not be available to accomplish other projects within the Basin because of the limited budget in the area. Ms. Payton stated that local commissioners and other elected officials are stating that if tax payers in the BCB are going to be responsible to pay for Picayune Strand projects, operations, and maintenance, then the local officials should have more say about how much water goes into the Picayune as currently the level is the same as it was at the time of the original project approval. Ms. Payton said that she is certain that local officials will push for more flood control for Southern Golden Gate Estates. Ms. Payton asked that the District look into the funding issue to make sure that there is a fair distribution of taxpayer funds in the BCB. Ms. Payton concluded that there is a need for the District and the Big Cypress Basin Board to educate local officials about the Picayune Restoration project as there is a lot of misinformation being transferred, and she does not want to see the project undermined or its purpose changed into a flood control project due to lack of knowledge.

Lieutenant Colonel (LTC) Tom Greco, USACE, stated that the USACE will retain the current release regimen that is currently being followed, which is 650cfs to the west and zero releases to the east, but it should be realized that there is local basin run-off coming into the far western structures, S-79 and S-80. LTC Greco said there has been sharper eyes on the Lake in the past month and the USACE expects it to continue to rise in the near future but is in a good position according to forecasts and historical precipitation data and monitoring will continue so that adjustments can be made if necessary.

Doug Yoder, Miami-Dade Utilities, referenced the Climate Change Summit mentioned by Commissioner Vana, stating that Mayor Carlos Jimenez is planning to appoint a task force comprised of financial, business, and insurance representatives to evaluate how best to address the issue of sea level rise and the impact on local economics. Mr. Yoder said the group would engage in a positive manner to consider planning and infrastructure in relation to the kinds of solutions that will facilitate local future economic viability. Mr. Yoder announced that the Miami-Dade County Commission adopted a local ordinance that requires any County infrastructure project to consider the consequences of sea level rise over the lifetime of the asset that is being constructed or over a 50-year period, whichever is greater. Mr. Yoder said that as a result, Miami-Dade Utilities will now apply an explicit analysis of sea level rise and stormwater management to any work being done on their facilities. Mr. Yoder said Miami-Dade is moving from discussion to action.

Chad Kennedy, Florida Department of Environmental Protection (FDEP), announced that the Lake Okeechobee Basin Management Action Plan (BMAP) has been out for review and public comment for a couple of weeks and the comment period will close at 5:00 pm on Monday afternoon. Mr. Kennedy offered to help WRAC members find the website being used to make comments.

Representative Katie Edwards introduced herself and stated that she represents western Broward County in the Florida House and serves on the House Agriculture and

Natural Resources Appropriations Subcommittee. The Representative commented that is good to have Rich Budell on the agenda to discuss some of the projects that the legislature is helping to fund and reiterated the legislature's commitment to state funded projects and seeing them to completion.

Public Comment

None

3. Hybrid Wetland Chemical Treatment (HWCTT) and Floating Aquatic Vegetative Tilling Technologies (FAVTT) Overview – Rich Budell, Director, Office of Agricultural Water Policy, Florida Department of Agriculture and Consumer Services, Tallahassee, Florida (FDACS)

WRAC Member Comments

Newton Cook confirmed with Mr. Budell that the volumes of water being treated through the HWCTT are relatively small compared to the treatment being applied in the stormwater treatment areas (STA) and asked what percentage of the reduction of phosphorus is from the chemical application and what percentage is from vegetation uptake. Mr. Cook asked if the \$34 cost associated with the technology was per pound and if that cost includes cost of building the facility and its operations over time and noted that this seems to be a good price considering phosphorus removal in an STA is usually quoted at around \$5,000 per pound. Mr. Cook suggested comparing the cost differentials.

Barbara Miedema, Sugar Cane Growers Cooperative, asked for the specific load reduction resulting from each of the projects discussed which could then be used to calculate cost per day for removal. Ms. Miedema noted that the Nubbin Slough number could be calculated as $\$34 \times 365$ for the annual cost of removal and is interested in the actual load reduction provided by each project since this is what is used in the BMAP. Mr. Budell responded that he will get that answer back to Ms. Miedema.

Brian Wheeler, Toho Water Authority, asked for the footprint of the facilities from smallest to largest. Mr. Budell replied that Nubbin Slough is the smallest at about two acres and the largest is Grassy Island at about 45 acres.

Albrey Arrington, Loxahatchee River District, asked if Mr. Budell could quantify the waste stream that comes from the treatment facilities such as are there waste products that need to be disposed of such as the sludge from the bottom of the settling ponds. Mr. Arrington also questioned the amount of effort FDACS staff has put into evaluating operational tweaks to improve performance, and if there any peer reviewed publications being released as part of the technology. Mr. Budell responded that flocculation areas are cleaned out and that material is then dried on site and can be reused. Mr. Budell said to his knowledge no material has required off-site disposal, although eventually the accumulated material will require off-site disposal. Additionally, Mr. Budell stated FDACS is always looking to optimize performance and permits issued by FDEP or the District, depending on the site, often contain conditions to ensure optimization is

addressed. Mr. Budell said that currently different varieties of flocculants are being looked at for use; for example, at Grassy Island FDACS is beginning to evaluate poly aluminum chloride as a tool instead of aluminum sulfate. Mr. Budell said that there are no peer-reviewed publications in development specific to the performance of the facilities under discussion. Mr. Arrington stated that peer-reviewed publications are the way that information is distributed among scientists and encouraged that these data and products are peer-reviewed and published.

Nancy Payton asked what happens to phosphorus stored in the waste material when it is removed and disposed of on-site. Mr. Budell explained that phosphorus becomes inert, transforming into a particulate matter that creates a flocculent material that is bound to aluminum and bio-unavailable. Mr. Budell said that the material is spread out on-site in drying beds and even if it rains, it does not return to the system as phosphorus. Mr. Budell continued that some aluminum does return to the system and a series of tests and monitoring is being evaluated through a coordination of efforts between FDACS, FDEP and the District to observe impacts. Ms. Payton wanted to know the possible impacts of aluminum on the environment to which Mr. Budell responded that a study conducted by the District shows a low-level aluminum accumulation in apple snails that is not passed along to the next generation, but since snail kites eat apple snails there is a potential that aluminum can accumulate in the snail kite. Mr. Budell clarified that there is no indication in the data the aluminum offers any impact, but to be certain the potential for impact is being closely evaluated.

Mike Collins, Florida Keys Fishing Guides Association/Florida Bay Initiative, said that a lot of money was spent when initially evaluating the effectiveness of STAs in comparison with other technologies. Mr. Collins stated that one of the reasons that this technology was not implemented on a larger scale were concerns related to possible downstream impacts from the aluminum and whatever else may be coming out of the process as there was no literature available to address those concerns. Mr. Collins continued that the decision had to be made on known facts as opposed to an unproven and undocumented technology. Mr. Collins said that if litigation continues regarding meeting a 10 ppb water quality standard, the agency may be forced to use this technology on a large scale even though there is no literature on its possible downstream impacts.

Blake Guillory, Executive Director, said that alum treatment technology has been in existence for quite some time and the first system was implemented in Tallahassee on Lake Jackson about twenty five or thirty years ago. Mr. Guillory stated that the City of Orlando uses the technology and there are about fifty systems or more on lakes around the state utilizing alum technology and there is quite a bit of literature or things that have been done on those systems. Mr. Guillory noted that although concern exists regarding treatment of a larger system, but the technology is appropriate in the right situation. Mr. Guillory remarked that you can see you can take a phosphorus loading of 400 and knock it down to 100 and in those specific instances there is quite a bit of benefit to use it. Mr. Guillory continued that we've all been struggling for the last ten or fifteen years how to up-size the program and how to evaluate the downstream impacts which has not been answered yet. Mr. Collins said that initially evaluators looked at the Tallahassee experiment but concluded that those are self-contained water bodies that do not flow

into a national park and agreed with Mr. Guillory that questions needed to be answered regarding the impacts of chemical treatment technology to a larger, more open system.

Bubba Wade, US Sugar Corporation, gave a historical prospective of the issue by discussing the original options for water treatment as initially discussed in 1993 including algal turf scrubbers, microfiltration, chemical treatment and STAs. Mr. Wade continued that algal scrubbers and microfiltration were ruled-out early on because they could not handle the volumes leaving chemical treatment and STAs as the remaining options. Mr. Wade said that chemical treatment would have cost about \$900M compared to the \$700M price tag of the STAs. Mr. Wade agreed with Mr. Collins regarding the debate being related to the unknown impacts of the chemicals to the environment and the possible downstream effects, but an additional concern from biologists arose related to the water being “marsh-ready” after chemical treatment. Mr. Wade said “marsh-ready” meant that chemical treatment may take out too many of the bugs and critters and other things present in the water necessary to ensure plant and downstream biological organism survival. Mr. Wade stated that chemical treatment began to be ruled out during the course of mediation and recalled that Galen Miller, a District consultant at the time, came in to a technical mediation and stated that treating the water down to zero and mixing back in untreated water to the wanted amount of phosphorus per billion would solve the problem in its entirety. Mr. Wade stated that two federal members of the team called their superiors with the solution then returned to the group stating that their superiors said that if any more discussion on chemical treatment took place and STAs were not chosen as the alternative they would walk away from the process and go back to litigation so everyone chose to go with STAs. Mr. Wade said that chemical treatment would treat phosphorus at all times and in all places by treating water during hurricanes, floods, droughts and any other weather condition. Mr. Wade noted that STAs are subject to erratic performance during weather events and hurricanes destroy them for a couple of years. Mr. Wade said that chemical treatment plants were designed to be less than 1000-ac and have a 20-ac landfill on-site to hold flocculent material for about twenty years while STAs were planned for 24,000-ac but are now climbing up to 60,000-ac. Mr. Wade stated that he has been a proponent for chemical treatment ever since the Governor Commission days and stated that water quality standards that are being asked of the District will never be achieved in South Florida with wetland treatment systems such as STAs due to the erratic nature of its performance, difference between performance north and south of the Lake, and the need to micromanage plants used for phosphorus uptake. Mr. Wade stated that chemical treatment takes out the majority of phosphorus up front as opposed to STAs that need time for plants to grow and develop for maximum uptake. Mr. Wade said that the value of this presentation is that there is no silver bullet north of the Lake and what he understands of chemical treatment is that water could be treated on 1,000-ac opposed to 24,000-ac now climbing to 60,000-ac in the EAA and would treat water all the way down the system to whatever level of phosphorus is required. Mr. Wade said that discussions could continue about downstream impacts but the standards will not be reached anywhere north of the Lake until technology such as chemical treatment is combined with the downstream wetland treatment as a middle-of-the-road approach to achieving water quality standards. Mr. Wade requested a map of north of the Lake that shows properties that are already excluded from purchase or use for restoration such as public lands like Avon Park and Kissimmee Valley, and Fish and Wildlife consuming thousands of acres with permanent conservation easements. Mr. Wade encouraged

the District to take a serious look at chemical treatment because the current Northern Everglades Plan calls for between 200,000 and 400,000 acres of treatment and storage which Mr. Wade does not think is currently available and chemical treatment offers an alternative for less acreage percentage wise than STA storage and treatment. Mr. Wade said that a solution needs to be found north of the Lake or the Kissimmee Valley and everything from Orlando up to the Lake and the Lake itself will have been written off and this technology may be the needed resolution.

Kurt Harclerode, Lee County Utilities, Alternate for Pam Keyes, asked if there were a technology for nitrogen removal in the Caloosahatchee basin. Mr. Budell responded that there is nitrogen removal associated with the current technology, however, it has not been a primary focus. Mr. Budell said typically HWT facilities will capture 40% to 50% of the nitrogen going in with much of that being plant uptake so there is a nitrogen benefit.

Jane Graham thanked Mr. Budell for his presentation and noted that Audubon views these technologies as tools in the tool box. Ms. Graham asked how the technology might be used to target phosphorus hotspots in the northern Everglades watershed as Audubon has participated in shaping the Lake Okeechobee BMAP and there are locations that have shown that if they are specifically targeted this type of technology would be helpful. Ms. Graham agreed with Mr. Wade that this technology could be used to help reduce phosphorus north of the Lake especially in targeted areas; however, another tool is for agriculture and urban areas in the region to really get serious about stopping new imports of new sources of phosphorus into the system.

Joe Capra, said that it is important to encourage new technologies and hopes that treatment trains of technology are being created to deal with water quality issues and nutrient load reductions throughout the system and in relation to the list of projects identified in the prioritization exercise. Mr. Capra stated that there is currently an STA in Martin County at Bessy Creek that has been chosen as a site to apply chemical treatment technology so it should serve as a simple basis for comparison for the amount of treatment being achieved in the STA compared to the chemical treatment side. Mr. Budell agreed.

Jane Graham asked where water quality is being measured in the Caloosahatchee project. Mr. Budell said that monitoring is being conducted at the inflow area and the outflow structures.

Albrey Arrington asked if mercury methylation and mercury mobilization is being monitored and quantified. Mr. Budell stated that monitoring mercury is outside the current scope of the budget and noted that recurring funding has been granted by the state legislature to operate and maintain these facilities and thanked Representative Edwards for her support of the project.

Newton Cook asked to be updated on the percentage of phosphorus reduction is from the sulfate and how much is from STA operation. Mr. Budell responded that 99% was from the precipitation method or chemical removal and 1% is from plant uptake.

Joe Capra asked if there may be a benefit to adding a column to the restoration projects prioritization table showing the technologies being used in conjunction with each of the listed projects. Mr. Guillory responded that staff spent several months editing the table which included removing several columns in order to present the most important information in a readily available, user-friendly, and portable format, so it is not an ideal location to add this information, however, it might be interesting to see the technologies being applied in different project locations, so a separate table might be something to look into.

Public Comment

None

4. C-25 Reconnect Plan - Jeff Sumner, Director of Agriculture and Water Policy, Office of the Chief of Staff, SFWMD

WRAC Member Comment

Newton Cook asked what percentage of the 155,000 ac-ft per year in reduced flow volumes to the Indian River Lagoon (IRL) would include basin run-off and the cost of the project related to the amount of flow reduction achieved. Mr. Cook questioned the true impact that 155,000 ac-ft per year in flow reduction would have on the IRL and if the benefit realized would be worth the cost. Mr. Cook wanted to know if the percentage was small. Mr. Sumner responded that he did not believe it is a small percentage and referred to the PBSJ study that provided a mean of around 200,000 ac-ft just from three large structures that facilitate C-25 and Indian River Farms discharges which represents a significant portion of the 155,000 ac-ft. Mr. Sumner continued that as proposed, the project would also take in flows from the C-23 and C-24, and although he could not provide percentage information Mr. Sumner directed the question to representatives of Groveland in the audience. Off camera commenter stated that the C-23, C-24 and C-25 is about 37%.

Doug Yoder stated that one of the points made by Mr. Sumner was that utilities would end up financing a significant portion of the project which is similar to the C-51 Reservoir project. Mr. Yoder said that historically utilities have been responsible for the cost of extracting water, treating water and providing and delivering water to customers, but have not typically acquired water rights. Mr. Yoder questioned whether this project is headed on path that is moving away from the idea that these kinds of regional water management improvements would be some combination of USACE funding and District funding which is provided by utility customers through property taxes and somehow transferring the cost to utilities. Mr. Sumner answered that he did not believe that this is the intent of the proposal and federal and state entities would continue to fund the project as normal; however, in response to utilities acquiring water rights, similar to any other utility, this one would have to obtain a consumptive use permit and would essentially be selling the storage, treatment, and transfer of that water similar to another utility as laid out in the proposal.

Joan Lawrence, United States Department of Interior (DOI), thanked Mr. Sumner for the presentation and recognized that the information was new to her even though she has heard about the Groveland Utility proposal she would like a briefing on the benefits of this alternative compared to the C-25 IRL South project in addition to the restricted allocation rule in the basin. Mr. Sumner agreed to meet with Ms. Lawrence for further discussion.

Brian Wheeler echoed some of Mr. Yoder's comments, particularly as a representative of the utilities in the Central Florida Water Initiative (CFWI) area in the northern basin. Mr. Wheeler noted that the mission of the District is water resource development and if the project has the environmental benefits as it indicates, then it should be the responsibility of the District to be the water resource developer and handle the water supply aspects of the project as well. Mr. Wheeler said that this project has been brought in front of the CFWI and there is not an entity within CFWI who has indicated a desire to participate in this project due to its distance from the region and its users with the closest area utility being the Toho Water Authority (TWA) which is over fifty miles from the site. Mr. Wheeler said that TWA is presently participating in other projects that would fulfill its water supply needs. Mr. Wheeler concluded that he thinks the project could provide some great environmental and water supply benefits; however, utilities should not be looked to for funding.

Jane Graham stated that Mr. Sumner mentioned a water reservation in his presentation and asked what water body the reservation would cover. Further, Ms. Graham asked how the project would perform during the dry season. Mr. Sumner replied that he did mention a potential reservation for the C-23, C-24, and C-25 complex and would do some research to provide more information regarding the reservation after the meeting. Mr. Sumner provided that during his presentation he mentioned some technical concerns that still need to be addressed, and dry season operation of the facility was one of them.

Doug Bournique, Indian River Citrus League, stated that the first issue that this project should address is the Indian River Lagoon. Mr. Bournique commented about 125mgd (million gallons per day) of water flow over the C-25 weir which equates to about 1B gallons of water per week going to tide from only one weir, not including the others in Martin and St. Lucie counties. Mr. Bournique said that giving Mr. Guillory and Hans Tanzler, St. Johns River Water Management District (SJRWMD) Executive Director, the flexibility to move water north and south like it used to rather than the current east-west discharges should be the number one priority of today's discussion. Mr. Bournique said that the reconnect project is the biggest environmental step that can be taken to help the IRL since the development of the upper St. Johns basin that could hold every drop of water that falls west of I-95 because currently this water rushes right into the IRL bludgeoning the Lagoon. Mr. Bournique stated District and SJRWMD flexibility to hold that water and send it wherever it is needed, not as a possession of one district or the other, but belonging to the citizens of the state primarily for the health of the IRL. Mr. Bournique stated that the Reconnect project along with the C-44 project are the two big cogs in the Lagoon as the District is already working on moving water south. Mr. Bournique continued that this project is about local drainage in his area that can be captured to benefit the Lagoon and future water supply. Mr. Bournique said that the ability to move water north-south will benefit citizens from Coco Beach to Stuart

because the state is out of easy water from Jacksonville to Key Biscayne the system is tapped. Mr. Bournique concluded that this issue has to be dealt with, and this is a great amount of water going to tide every day that can be used and reused for the benefit of the environmental community, the agricultural community, and the citizens in all of the cities.

Kevin Powers, WRAC Vice-Chair, agreed with Mr. Bournique and added that the potential benefits warrant the discussion of the issue to be elevated to a priority. Mr. Powers stated it is clear that a lot more evaluation needs to take place in order to move forward which he would like to see happen. Mr. Powers recalled a discussion with the late Senator Phil Lewis, often regarded as the father of water management districts created under Chapter 373, F.S., regarding his wish to re-evaluate the hydrologic boundary between the District and the SJRWMD. Mr. Powers continued that if the area were clearly in one district or the other it would have already received the attention it deserves, but as it crosses district boundaries a solution has not been determined. Mr. Powers noted Tommy Strowd, former District Operations Manager, as describing the area as a "flat hill" in which water could flow through either north or south and stated that it is time to explore this option more seriously.

Commissioner Shelley Vana agreed with the comments of both Mr. Powers and Mr. Bournique, but stated that as an elected official she has some difficulty addressing the difference between the involvement of the utilities and the District. Commissioner Vana said that these differences need to be discussed. The Commissioner stated that as a proponent of the C-51 reservoir, her moral responsibility in her elected capacity, is to do what is right for the IRL and to ensure what is currently happening does not continue. Commissioner Vana said there may be some difficulty in trying to figure out how to make this work in a new way and it is good that Representative Edwards is present to hear the discussion.

Blake Guillory stated that it is known that there are significant amounts of excess water going into the Indian River Lagoon with the biggest issue being local basin run-off. Mr. Guillory said the District has a plan and is currently addressing C-44 and actively working to purchase the last five parcels needed for the C-23/C-24 Reservoir which the legislature and Governor have made funding available towards this goal. Mr. Guillory said the C-25 has not been solved yet. Mr. Guillory stated that he was working with PBSJ on that project during the time of the initial study and it was an enlightening experience being told by both the District and the SJRWMD that there was no excess water going over the C-25 weir and both districts told the company not to cross over the canal into the other district's boundary. Mr. Guillory stated that looking at the historical hydrologic maps it was clear that the water could go anywhere and the divide was so unclear that the discussion regarding inter-district transfer is ridiculous because just looking at the area intuitively there should be no issue in trying to resolve this problem. Mr. Guillory commended the leadership of both Districts who authorized the original study that showed an average of 200,000 ac-ft of water going over the C-25 weir into the IRL and during the dry period there was an average of 80,000 ac-ft of excess water going over. Mr. Guillory stated that the issue is what to do with all of the excess water that all clearly agree exist in the C-23, C-24, C-25 and C-44 and an engineered solution must be devised to move water around as needed. Mr. Guillory concluded that District staff has been fully engaged and he has been in discussions with Mr. Tanzler and all

are in support of trying to resolve the issue of the C-25 interconnect which is the reason for today's presentation.

Mike Collins said that looking at the Central and Southern Flood Control Project (C&SF) and its original planning documents it is clear that the areas that are experiencing troubles are those in which construction had never been completed for numerous reasons. Mr. Collins cited south Miami-Dade and around ENP as examples of work not being completed for political reasons and cited incomplete work on the north end of the system as not being completed due to lack of data at the time and C&SF moved forward without those pieces so as not to hold up the entire project. Mr. Collins stated that time has passed and data has been collected through the studies presented and it is a no-brainer, and with the current options on the table there should be a way to protect the IRL and supply water in other areas. Mr. Collins said that where C-25 ends up on the priority list will depend on how hard the people involved push the issue because some of the federal agencies will have other priorities, such as the Integrated Delivery Schedule, so it will be up to both Districts and the stakeholders to keep pushing as discussions come up.

Brian Wheeler addressed Commissioner Vana's earlier comments by stating that the Southwest Florida Water Management District (SWFWMD) has a long history of financing water resource development projects for both environmental and water supply benefit and encouraged the District to follow the example that SWFWMD has set to deal with this type of project.

Doug Bournique recalled Jack Malloy's advice in 1979 regarding the historical pattern of water flow from St. Lucie to the north and his warning regarding severely underestimating the amount of water coming from the fifty foot ridge where YeeHaw is and down into Martin and St. Lucie counties. Mr. Bournique said that Mr. Malloy also informed him that most of the water in St. Lucie County west of I-95 wants to go and used to go north. Mr. Bournique continued that while they are currently flooding all the way north to Jacksonville it should not be forgotten that in 2010 it was dry and West Palm Beach canals used for water supply were dry and there was only one out of five wells that was working so water was extremely scarce a few years ago and not much has been done to augment the water supply and this is one of the biggest steps that can be taken to save water that is currently going into the IRL and put it where all can use it for the future.

Public Comment

None

5. Restoration Strategies Construction Update - John Mitnik, P.E., Engineering and Construction Bureau Chief, Operations, Engineering and Construction Division, SFWMD

WRAC Member Comment

Barbara Miedema asked where the S5AS structure is located. Mr. Mitnik described and pointed the structure out on the map and used Google Earth to zoom in further.

Blake Guillory said that it is important to list the number of jobs associated with the projects that the District is building. Mr. Guillory pointed out that these projects, in addition to solving water problems, also greatly contribute to the economy in the form of jobs. Mr. Guillory stated that on a recent visit to the A-1 Reservoir there were 178 workers present that day and as this project and the L-8 Reservoir project wind down, District staff is looking at the next project to construct in order to keep these workers, which come from places such as Glades, western Palm Beach and Broward Counties, employed on District projects like STA 1 West or C-44. Mr. Guillory stated it is also important to recognize that contract negotiations with all of the professional services firms chosen for Restoration Strategies and Works of the District related work have concluded. Mr. Guillory commented that this selection was significant as a contributor to roughly 150 individual firms, part of about twenty teams comprised of engineers, drafters, construction supervisors, superintendents, and inspectors, that the District will spend an average of \$45M per year in the next five years averaging 300-400 fulltime jobs dedicated to doing work for the District each year. Mr. Guillory reiterated that as these projects are discussed it is important to keep in mind the people that are working on them.

Joe Capra appreciated the inclusion of the jobs tied to the District's capital construction program. Mr. Capra also valued the different combinations of construction strategies such as design-build and design-bid-build which offer better pricing. Additionally Mr. Capra appreciated staff looking into keeping these workers employed on District projects as a motivator to contract employees and continuity of service for the District.

Commissioner Karson Turner stated that for the past six years Hendry County has been the leader in unemployment at each quarterly interval every time except once. The Commissioner commented that the jobs numbers are critical to the slides presented so that people understand the needs and what is actually being accomplished. Commissioner Turner commented on the large number of citizens from Hendry and Glades counties that are working on the A-1 Reservoir project and the carryover economic boosters from people working locally from Central Florida using the local businesses for their needs. The Commissioner stated that because of the activity spurred by A-1 construction Hendry County is up about 22% in tourism and development. Commissioner Turner stated that a group of Commissioners are working on a model to market southwest Florida as a regional economic engine with a tourism aspect. The Commissioner encouraged more construction in the region and mentioned BOMA and C-43 as projects that people in his region could benefit from if jobs on those projects are available to them.

Albrey Arrington appreciated the Mecca project and its replacement features being listed in Mr. Mitnik's presentation and asked for a target date for completion of the design and a timeline for construction completion. Mr. Mitnik replied that generally for a facility of that scope and nature design can take from eighteen to twenty four months with construction commencing shortly thereafter.

Barbara Miedema said that the school district has consulted with Florida Training Services, Inc. to help with job skills and training in Glades County by opening a new Construction Trades Program at West Technical Education Institute having a career readiness roundtable and a construction academy which recently graduated the first group of twenty two students that all had a job upon graduation. Ms. Miedema commented that the next class begins training in November and the County is working closely with the Lake Okeechobee Regional Economic Alliance and Palm Beach State College along with the school board to ensure that local residents possess the skills they need to obtain the jobs being discussed. Ms. Miedema asked if the G-341 project would interface with the Bolles Canal Improvement Project. Mr. Mitnik confirmed that the two projects will work in concert with one another and the design is being coordinated to that effect.

Public Comment

None

6. Staff Reports

None

7. General Public Comment

None

Final WRAC Member Comment

Mike Collins asked for an update on STA performance and operations in light of keeping the levels higher this year and vegetation changes that may be occurring.

Barbara Miedema congratulated the District for winning FEMA case and stated that every dollar that can go back into District coffers is a precious resource. Ms. Miedema also applauded the work of Palm Beach County Commissioners on being leaders on issues like Waters of the US (WOTUS) and FEMA flood maps which are both critical issues to the economic well-being of the region.

Blake Guillory stated that at next week's Governing Board meeting is the first meeting of the District's fiscal year and the District's accomplishments will be discussed and WRAC has constructively engaged over the last year and accomplished quite a bit and encouraged WRAC to begin to think about its focus for the next 12 months.

8. Adjourn

Mr. Moran reminded WRAC members that the November 6th meeting will be held at the OK Corral Gun Club in Okeechobee and that there will be a regular WRAC meeting on December 4th at District headquarters.

Mr. Moran adjourned the meeting at 11:35 am.

